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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,063	03/12/2004	Johannes Wesselmann	SHEE 2 00023	8437
27885	7590	12/05/2005		
FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114			EXAMINER KRECK, JOHN J	
			ART UNIT	PAPER NUMBER
			3673	
DATE MAILED: 12/05/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,063

Applicant(s)

WESSELMANN, JOHANNES

Examiner

John Kreck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/7/2005 has been entered.

Claims 1-18 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Weber (U.S. Patent number 4,870,697)

Weber teaches a face control system with a first face sided radio transmission device (81, 51); and a second face master control sided transmission device (8,5); the radio transmission devices each having receiver and transmitter modules to carry out wireless and cable free bi-directional data transmission in the end region of the face between the first face sided radio transmission device and the second face master control sided device as called for in claim 1.

Weber also teaches the control system comprising the wireless and cable free bidirectional communication system providing radio communication between the communication device and the face master control sided radio transmission device as called for in claim 6.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 -17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stolarczyk (U.S. Patent number 5,087,099) in view of the DERWENT abstract of ZA7606990A [1978-H4760A]. A copy of the original patent document is not yet available, however the DERWENT abstract represents prior art since it was published in 1978.

Stolarczyk discloses the face control system including a first face sided radio transmission device; and a second face master control sided transmission device, the devices having receiver and transmission modules. Stolarczyk teaches some cable-free and wireless communication, but does disclose a cable (104) between the first and second device; and thus fails to meet the limitation "cable-free" in the entirety of that region.

1978-H4760A teaches a radio link between a fixed underground location and various underground areas. One of ordinary skill in the art would have known that this is advantageous because it allows for communication without string wires or cables.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Stolarczyk apparatus to have used a radio link [and therefore a cable-free transmission system] between the first and second devices as called for in claim 1, in order to eliminate the need to lay a cable.

Stolarczyk fails to explicitly disclose the transmission device on the face edge. Absent any showing of unexpected results, the precise placement of the device is deemed to be obvious to one of ordinary skill in the art.

With regards to claim 3; "the communication device in the face" is interpreted as "the first face sided radio transmission device"; which is shown by Stolarczyk; and disclosed as being on multiple shields; thus is deemed to be spaced as called for in claim 3.

Stolarczyk teaches the mining machine having a radio transmission system (e.g. 125) as called for in claim 4.

Stolarczyk teaches the control device as called for in claim 5.

Regarding independent claim 6:

Stolarczyk teaches a face support control system comprising a communication system providing radio communication. Stolarczyk teaches some cable-free and wireless communication, but does disclose a cable (104) between the communication

device and the control sided device; and thus fails to meet the limitation "cable-free" in the entirety of that region.

1978-H4760A teaches a radio link between a fixed underground location and various underground areas. One of ordinary skill in the art would have known that this is advantageous because it allows for communication without string wires or cables.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Stolarczyk apparatus to have used a radio link [and therefore a cable-free transmission system] between communication device and the control sided radio device as called for in claim 6, in order to eliminate the need to lay a cable.

Stolarczyk teaches a first radio as called for in claim 7.

Stolarczyk teaches a second radio as called for in claim 8.

Stolarczyk teaches a second communication device as called for in claim 9.

Stolarczyk teaches radio communication as called for in claim 10.

Stolarczyk teaches the radio transmission station as called for in claim 11.

Stolarczyk teaches a second communication device as called for in claim 12.

Regarding independent claim 13:

Stolarczyk teaches the mining system comprising a mining machine (e.g 124-130, figure 4); a plurality of support shields (96); a plurality of control devices (258, see col 8, lines 23-51) for controlling the shields; at least one communication device (192) in communication with at least one of the plurality of control devices; a face master

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control (e.g. 220,224); and a wireless and partly-cable free radio based communication system (e.g. 236 and 248) providing radio communication between the communication device and the face master control . Stolarczyk teaches some cable-free and wireless communication, but does disclose a cable (104) between the communication device and the control sided device; and thus fails to meet the limitation "cable-free" in the entirety of that region.

1978-H4760A teaches a radio link between a fixed underground location and various underground areas. One of ordinary skill in the art would have known that this is advantageous because it allows for communication without string wires or cables.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Stolarczyk apparatus to have used a radio link [and therefore a cable-free transmission system] in place of the partly- cable-free link as called for in claim 13, in order to eliminate the need to lay a cable.

Stolarczyk teaches the radio transmission station (192—col. 7, line 24 or 125—col. 6, lines 32-44) providing communication between the mining machine and the communication device as called for in claim 14.

Stolarczyk teaches first and second communication devices as called for in claim 15.

Stolarczyk teaches the radio communication between the first and second devices as called for in claim 16.

Stolarczyk teaches the radio transmission station providing communication between the mining machine and at least one of the first and second communication devices as called for in claim 17.

3. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stolarczyk in view of 1978-H4760A as applied to claim 17 above, and further in view of Merriman (U.S. Patent number 5,029,943).

Stolarczyk fails to teach the transmission station (i.e. the mining machine radio) provides communication between both the first and second communication devices (e.g. two distinct shield radios) and the mining machine

Merriman teaches a radio (col. 2, line 30) transmission station for communicating between each shield radio and the mining machine. This provides the advantage of allowing the location of the mining machine to be determined (col. 2, line 14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Stolarczyk system to have the transmission station provides communication between the first and second communication devices and the mining machine as called for in claim 18; in order to facilitate locating the mining machine along the face.

Response to Arguments

4. Applicant's arguments with respect to claims 1-18 have been considered but are largely moot in view of the new ground(s) of rejection.

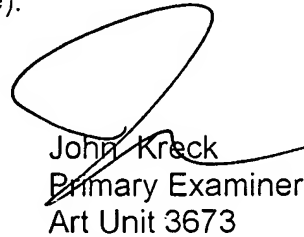
5. Applicant's assertion that the claims require radio-based wireless and cable-free bidirectional communication between the devices (such as shown between 8 and 9 in figure 1) is well taken. It is apparent that Stolarczyk discloses the use of some cable (e.g. 104) between the devices which correspond to 8 and 9 in figure 1. Although this cable is not "hard-wired", it remains a cable, and thus is deemed not to meet the limitation "cable-free".

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The SME Mining Engineering Handbook (see 12.6.4.2) is cited for teaching of allowing radio transmissions to take a "free-ride" on water pipes, power cables, etc. Such a "free ride" is deemed to be a "cable-free" transmission when the transmission element is, for example, a water pipe or other ---non cable--metallic structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kreck whose telephone number is 571-272-7042. The examiner can normally be reached on Mon, Tu, Th: 530-400; Fri: telework.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on 571-272-7049. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John Kreck
Primary Examiner
Art Unit 3673

22 November 2005